

City and County of the City of Exeter.



ANNUAL REPORT

— FOR 1896, —

OF THE —

Vital Statistics,


SANITARY WORK, &c.

JOHN WOODMAN, M.D., F.R.C.S.,
Fellow British Institute of Public Health
Member Sanitary Institute,
Medical Officer of Health.

Exeter:

Printed at the "Devon Evening Express" Office, High Street.

1897.



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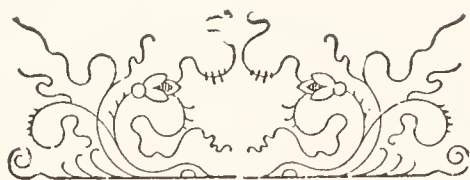
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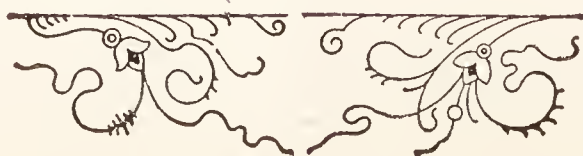
1897.



I have the honour to present
to the Right Worshipful the Mayor,
Aldermen, and Council of the City
of Exeter, my Annual Report for
the Year 1896.

JOHN WOODMAN.

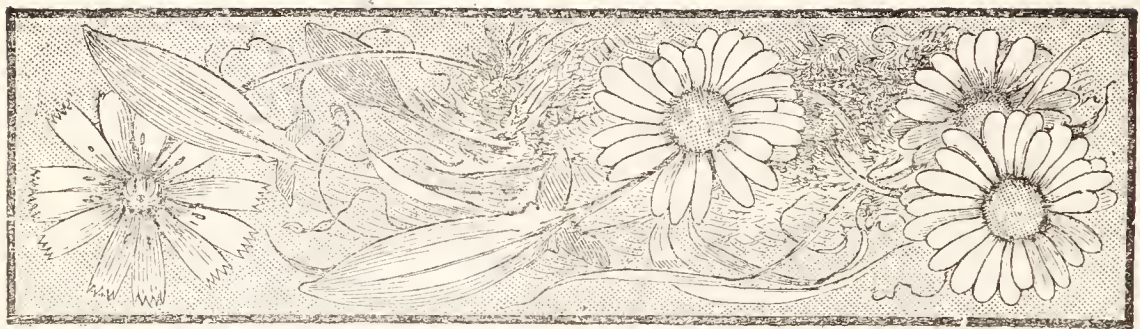
April, 1897.



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❁ Annual Report. ❁



GENERAL OBSERVATIONS.

In submitting my Annual Report for 1896, I find the long period (ten years) which now elapses between the taking of the census, renders it very difficult to correctly estimate the population of any Urban or Rural District, and I trust that at least, in Towns (say the 100 in which Exeter is included) the census will very shortly be taken every five years. As six years have passed since the last census, this difficulty is greater than it was last year. After weighing, as nearly as I can, the two questions, new houses built and occupied, during the year, and voids, I think I shall be acting as fairly as I can if I estimate the population at the same as I did last year, viz. :—38,000.

General
Observa-
tions.

VITAL STATISTICS.

The total number of Births registered in Exeter in 1896 was 975, equal to a Birth-rate of 25·65 per 1,000.

Birth
Rate.

The Registrar-General, in his summary for 1896, gives the Birth-rate for England and Wales as 29·7 per 1,000 of the population.

The Birth-rate is again below that of England and Wales.

The low Birth-rate should be noted, as this means a small proportion of young adults, and a large proportion of adults and old people, and is therefore unfavourable to a low Death-rate.

The total number of Deaths in Exeter was 708, equal to a Death-rate of 17·2 per 1,000 per annum.

Death
Rate.

The Death-rate for England and Wales is given, for the same period, as 17·1. The Death-rate for the 33 Great Towns is 18·9. The Death-rate for the 67 Large Towns (in which Exeter is included) is 17·3. The Death-rate for Exeter is the lowest that I have had to report for the past ten years, being 0·1 below that of the 67 Large Towns in which Exeter is classed, and 1·7 below that of the 33 Great Towns. In England and Wales, less the 100 Towns, the Death-Rate was 15·8.

The Death-rate in Exeter for Infants under 1 year is 164 per 1,000 births. The Death-rate of Infants under 1 year in England and Wales was 148 per 1,000. The Death-rate for the same number of Infants in the 67 Large Towns, was, in the same time, 161 per 1,000 births.

Infantile Mortality

The Infantile mortality is slightly above that of the 67 Large Towns.

The Death-rate of persons over 60, was 64·6 per 1,000, at that group of ages.

Deaths in Public Institutions :—

In Devon and Exeter Hospital	..	..	76
In City Workhouse	..	..	33
			<hr/>
Total	..	..	109

By agreement with the Registrar-General 5-7ths of the Deaths occurring in the Devon and Exeter Hospital are deducted in calculating our Death-Rate.

The Death-rate for the last 10 years, in both Exeter and the 33 Great Towns, was :—

The following Table will shew the comparative Rates for each Month or Year :—

CITY OF EXETER

Death Rate Statistics

Month	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896
Jan.	26·	24·	21·	26·6	28·3	36·1	22·3	31·3	24·35	19·2
Feb.	21·2	21·9	26·4	27·7	16·3	25·5	17·2	30·1	27·9	29·6
Mar.	25·4	24·1	22·6	25·7	23·8	18·8	20·7	22·7	28·99	13·71
April	19·	24·4	22·9	24·1	27·3	14·3	21·3	20·7	18·92	17·2
May	17·	18·8	15·55	17·69	23·7	17·2	13·68	15·0	15·1	14·84
June	19·4	13·6	9·45	14·2	22·5	10·4	12·53	14·76	10·39	19·63
July	17·6	13·4	15·76	11·	18·7	16·2	15·0	18·6	14·7	15·4
Aug.	15·55	16·6	15·7	12·4	14·4	13·6	15·5	13·8	15·47	13·94
Sept.	*35·	14·	19·3	15·66	17·1	23·	14·89	15·3	13·1	14·5
Oct.	17·3	17·5	19·4	15·3	+31·6	17·	13·9	18·6	16·6	14·5
Nov.	18·4	20·4	16·7	16·6	+27·3	13·76	18·63	21·2	15·08	17·1
Dec.	17·1	21·8	24·4	27·3	25·3	17·4	36·1	25·5	11·65	18·47
Total	248·95	230·5	232·16	235·25	276·3	223·26	221·73	247·56	212·15	205·49

* Theatre Fire

† Epidemic of Measles

The Death-Rate per 1,000 for each year being :—

20.74	19.2	19.3	19.6	23.	18.6	18.47	20.63	17.47	17.2
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IN THE 33 GREAT TOWNS

Month	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896
Jan.	23·6	23·1	23·1	25·46	26·3	33·1	25·50	23·8	19·82	19·2
Feb.	20·4	21·6	19·7	24·7	21·3	23·4	19·7	19·4	27·47	19·8
Mar.	22·2	21·6	20·5	23·3	22·2	22·6	20·5	19·85	29·57	19·6
April	21·04	21·15	19·1	20·37	23·7	21·8	20·7	18·85	20·2	19·04
May	20·32	18·3	17·8	19·2	30·5	19·7	18·5	17·5	17·4	18·15
June	18·7	16·28	17·	17·5	23·9	17·6	20·06	16·2	15·95	17·17
July	19·15	20·5	17·8	17·6	17·8	17·5	24·07	16·4	20·45	21·66
Aug.	22·7	17·1	18·5	20·3	18·5	17·9	21·5	16·85	20·08	19·1
Sept.	17·9	17·9	16·9	19·17	17·7	18·2	19·87	15·75	20·	15·67
Oct.	19·15	20·5	17·8	20·5	18·3	18·15	18·3	17·05	20·22	17·2
Nov.	21·5	18·8	18·2	20·5	20·3	19·15	23·68	17·3	19·5	20·5
Dec.	22·2	20·1	22·5	23·9	21·1	20·68	25·6	19·0	18·35	19·16
Total	258·41	230·98	232·1	252·8	261·6	249·78	258·63	217·75	253·81	226·25

Death
Rate
Statistics

The Death-Rate per 1,000 for each year being :—

21·5 19·24 19·3 21· 21·8 20·81 21·55 18·11 20·7 18·9

The Deaths in Exeter due to the Notifiable Zymotic Diseases were : —

<i>Small Pox.</i>	<i>Diphtheria.</i>	<i>Scarlet Fever.</i>	<i>Typhoid Fever.</i>	<i>Puerperal.</i>	<i>Erysipelas.</i>	<i>Total</i>
2	3	0	13	1	1	20

Zymotic
Deaths

The Deaths from Non-Notifiable Diseases were :—

<i>Measles.</i>	<i>Whooping Cough</i>	<i>Diarrhœa</i>	<i>Total</i>
7	0	22	29

Non-
Notifiable
Deaths

Giving the low Death-rate for Notifiable Zymotic Diseases of 0·52 per 1,000, and for Non-Notifiable Diseases of 0·76 per 1,000.

The Death-rate for the Zymotic Diseases in all England for 1896 was 2·18 per 1,000, whilst that of Exeter was only 1·28 per 1,000.

The following Table shows the Annual Death-rate per 1,000 for all causes and from several Zymotic Diseases during the year 1896 :—

Annual Death-Rates per 1,000 for all Causes and from several Zymotic Diseases during the year 1896.

Annual Death Rate		All Causes.	Principal Zymotic Diseases	Small Pox	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough	Fever.	Diarrhoea	Deaths under 1 year per 1000 Births.
	England & Wales..	17 1	2·18	0 02	0·56	0·18	0·29	0·41	0 17	0 55	148
	33 Great Towns ...	18·9	2·86	6·00	0·71	0 22	0 38	0·57	0·19	0·79	167
	67 other large Towns	17 3	2·51	0 12	0·64	0 19	0·25	0·43	0·20	0·68	161
	England & Wales } less the 100 Towns }	15 8	1·60	0 00	0·43	0·14	0·23	0 30	0·14	0 36	130
	Exeter	17·2	1 28	0·05	0 01	0·00	0·008	0·00	0·37	0 06	164

DISEASE INCIDENTS.

NOTIFIABLE DISEASES.

Cholera

CHOLERA.

No case has occurred.

Small
Pox

SMALL POX.

Between March 2nd and June 15th 31 cases, were notified. All these (with two from the County of Devon) were at once removed to the Sanatorium, and every possible precaution taken to prevent the spread of the Disease, such as *re-vaccination*, disinfection of rooms and clothes, and destruction, by fire, of infected bedding. Isolation of suspicious cases also formed an important part of the preventive treatment, whilst the Common Lodging Houses were nightly inspected and (as a case had occurred in one of them) the vaccination and re-vaccination of their inmates was carried out as far as we could,

The Children in the Elementary Schools were duly Examined by the Assistant Medical Officers of Health, and where proper evidence of vaccination did not exist, the names and addresses of the Children were sent to the Public Vaccinator. Small
Pox

By these active precautions taken by your Medical and Sanitary Officers, the entire area of the disease was, with two exceptions (infected in the District), confined to a radius of 300ft. in the Lower Quarter of the Town.

This, I am sure, you will consider a very effectual isolation of so infectious a disease, especially as, owing to the ill-health of the late Vaccination Officer, the vaccination of Infants had not been kept up to its former efficient state.

The whole of the outbreak in Exeter can be clearly traced to two sources (mentioned in detail hereafter), but I have failed to trace the source from which these two cases became infected, unless some case from Gloucester passing through the City was the cause.

The two cases were:—First, a woman leading an immoral life, residing in the West Quarter, who had previously had Small Pox, and was marked with the same, and who had the disease in so modified a form as to prevent its early recognition; the second was a man, a scavenger, in the employ of the Council, who was well vaccinated, and had the disease so mildly that he never had any medical treatment, and after three days at home resumed his duties, and his having had the disease was only found out by his son developing this disease, in a Public Institution outside Exeter. On finding that the son had been home just at the time he should have been infected, and then that his father was home unwell at the time, I had him (the father) sent for, and found a few scabs on him, proving that his complaint had really been very mild modified Small Pox. He himself said he was quite well, but he was removed to the Sanatorium and his house, bedding, and clothes disinfected.

I am glad to have this opportunity of thanking the Assistant-Medical-Officers of Health and the Sanitary Inspectors for their cordial and constant *day and night* work in this Epidemic, and I am sure it was only the thorough co-operation between us all, which prevented this becoming, by far the most formidable Epidemic Exeter has known for years.

Small
Pox

I may add that this Epidemic occurred in the lowest and most thickly populated part of Exeter, the *whole* of the houses in the neighbourhood being let out in tenements.

Table shewing number of cases vaccinated, and un-vaccinated, with mortality from same at various groups of ages :—

Vaccinated.					Un-Vaccinated.				
Ages.	No. of Cases.		Deaths.		Ages.	No. of Cases.		Deaths.	
1 to 5	...	1	...	—	0 to 1	..	1	...	1
5 to 15	..	5	...	—	1 to 5	...	2	...	0
15 to 25	...	11	..	—	5 to 15	...	2	..	0
25 to 35	..	7	...	—	10 to 25	...	1	..	0
35 to 45	...	1	...	—	25 to 35	..	2	..	1
Total	...	25	..	0	Total	...	8	..	2

From the above tables it will be seen that the mortality was entirely confined to the un-vaccinated cases, no deaths having occurred amongst the 25 vaccinated.

DIPHTHERIA.

Diph-
theria

Sixteen cases were notified, with three deaths. Of these, five cases were sent to the Sanatorium, all from the Higher Barracks. I believe that the Sanitary arrangements in the Married Non-Commissioned Officers' Quarters were found to be very unsatisfactory. This was undoubtedly the cause of the outbreak. (As the Barracks are not under our Jurisdiction I cannot speak certainly, but I believe this has been remedied.)

Out of the sixteen cases notified, nine were examined bacteriologically at the British Institute of Preventive Medicine. Of these, in six cases the Diphtheria Bacilli were found and in three cases they were not. We may, therefore, conclude that some cases returned as such were not true Diphtheria.

Table showing number of cases of Diphtheria Notified and Mortality for the same for the past six years :—

Year	..	1891	1892	1893	1894	1895	1896	Total
Cases Notified		12	17	14	21	22	16	102
Deaths	..	3	3	4	17	1	3	26

MEMBRANOUS CROUP.

Mem-
branous
Croup.

No cases notified.

SCARLET FEVER.

Scarlet
Fever

The number of cases notified is less than that of 1895. Number of cases notified was 63, of which 39 were removed to the Sanatorium. There was no death from this disease. The following Table will show the cases for the last six years:—

TABLE shewing number of Cases of Scarlet Fever Notified and Mortality for the same for the past six years:—

Year ...	1891	1892	1893	1894	1895	1896	Total.
Cases Notified	173	340	769	225	86	63	1659
Deaths ...	1	4	5	7	3	0	20

The numbers of cases of Scarlet Fever under treatment at the Sanatorium was ... 79 with no death.

The cases notified in Exeter (not removed to Sanatorium) was ... 24 (no death).

TYPHOID FEVER.

Typhoid
Fever

This fever has again been present during the year. Seventy-four cases having been notified, with 13 deaths; of these 8 were sent to the Sanatorium and 19 were sent to the Devon & Exeter Hospital. All houses in which this disease occurred were examined, and where sanitary defects were found Notice was at once served on the owners to remedy them, and in each case complied with.

TABLE shewing number of Cases of Typhoid Fever Notified and Mortality for the same for the past Six Years:—

Year ..	1891	1892	1893	1894	1895	1896	Total.
Cases Notified	48	47	57	56	38	74	320
Deaths ...	4	11	7	8	8	13	51

Con-
tinued
Fever.

CONTINUED FEVER.

Two cases notified with no death.

TABLE shewing number of Cases of Continued Fever Notified and Mortality for the past Six Years :—

Year ..	1891	1892	1893	1894	1895	1896	Total.
Cases Notified	0	8	3	3	3	2	19
Deaths ...	0	0	0	0	0	0	0

Typhus
Fever

TYPHUS FEVER.

No case of this disease has been notified.

Puerperal
Fever

PUERPERAL FEVER.

Three cases has been notified with one death.

ERYSIPELAS.

Forty-three cases have been notified, with one death.



Non-Notifiable Diseases.

In reporting on Non-Notifiable Diseases, I find myself unable definitely to estimate their numbers, but from general observations I believe they have been below the average.

Measles

MEASLES.

Several cases of this disease occurred at the end of the year, with a total of 7 deaths, the epidemic being fairly spread over the whole of the City.

WHOOPING COUGH.

Whilst I believe a few cases have occurred in the City, I am pleased to add that no death from this disease has taken place.

DIARRHŒA.

Diarrhœa

Owing to the hot summer a good many cases of Infantile Diarrhœa occurred with 22 deaths.

INFECTIOUS DISEASE.

Infec-
tious
Diseases

The details of cases of Infectious Diseases notified during the year are set out in Tables I. and II., and the Weekly Notifications during the year are shown in Chart I.

The Weekly Mortality from these diseases is shewn in Chart II. and the localities in which fatal cases have occurred are indicated on the accompanying Map of the City.

SANATORIUM OR FEVER HOSPITAL.

Sana-
torium
Report

Report on Sanatorium for year 1896.

Gentlemen,

We have to report that the number of cases treated this year is larger than those for 1895, but less than for 1894, viz :—

1894—Total cases treated at Sanatorium	..	230
1895—Ditto ditto ditto	..	91
1896—Ditto ditto ditto	..	132

But the number of Cases from the County of Devon shows a steady increase, proving that the advantages of an Isolation Hospital are becoming more and more appreciated.

Cases from County of Devon (1894)	..	6
Ditto ditto (1895)	..	20
Ditto ditto (1896)	..	32

No deaths occurred amongst the Patients from the County of Devon.

Cases treated from City and County of Exeter	..	100
Cases treated from County of Devon	..	32
		<hr/> 132

With 5 deaths; 2 from Small Pox (both unvaccinated), 2 from Typhoid Fever, and 1 from Diphtheria, giving a Death-rate of 3·8 per cent.

The average duration of each Patient's stay in the Sanatorium was 50·48 days.

The cases of Zymotic Disease notified in Exeter were 232, of which—

83 were sent to the Sanatorium.

18 were sent to the Devon and Exeter Hospital.

101

DIPHTHERIA.—Five cases of this Disease were treated, with one death. In each case the Sputum was sent to the British Institute of Preventive Medicine, and no case discharged until it was reported free from the Diphtheria Baccilli.

SMALL POX.—Thirty-six cases of this Disease were treated with two deaths (both unvaccinated), all but two coming from the City of Exeter. Schedules appended.

We are, Gentlemen,

Faithfully yours,

JOHN WOODMAN.

EDWARD A. BRASH.

GEORGE T. CLAPP.

JOHN MACKEITH.

Exeter February 11th, 1897.

Summary of Cases treated at the Sanatorium for the year 1896 :—

Sanatorium Report

<i>Diseases Treated.</i>	<i>Remain- ing 1st Jan., 1896</i>	<i>Admitted during 1896</i>	<i>D s charged Cured</i>	<i>Deaths</i>	<i>Total treated during 1896</i>	<i>Remain- ing 1st Jan., 1897</i>
Typhoid Fever ..	2	10	10	2	12	—
Scarlet Fever ..	12	67	72	—	79	7
Small Pox ..	3	33	34	2	36	—
Diphtheria ...	—	5	4	1	5	—
Measles ..	—	—	—	—	—	—
Total ..	17	115	120	5	132	7

Summary of Cases treated at the Sanatorium from the County of Devon for the year 1896, but included in the above :—

<i>Diseases Treated.</i>	<i>Remain- ing 1st Jan., 1896</i>	<i>Admitted during 1896</i>	<i>Dis- charged Cured</i>	<i>Deaths</i>	<i>Total treated during 1896</i>	<i>Remain- ing 1st Jan., 1897</i>
Typhoid Fever ...		2	2	—	2	—
Scarlet Fever ..	—	28	25	—	28	3
Small Pox ..	—	2	2	—	2	—
Diphtheria ..	—	—	—	—	—	—
Measles ..	—	—	—	—	—	—
Total ..	—	32	29	—	32	3

Summary of Typhoid Fever Cases treated at the Devon and Exeter Hospital for the year 1896 :—

<i>Diseases.</i>	<i>Cases Admitted.</i>	<i>Discharged Cured.</i>	<i>Deaths.</i>	<i>Total treated during '96</i>	<i>Rem'ning 1st Jan., '97</i>
Typhoid ..	18	11	4	18	3

Sana-
torium
Report

Schedule of Cases treated at the Exeter Sanatorium for the year 1896:—

DATE.	Cases Treated.				Deaths.				Discharged Cured.				Remaining on the last of each Month.			
	Typhoid Fever.	Scarlet Fever.	Diphtheria.	Small Pox.	Typhoid Fever.	Scarlet Fever.	Diphtheria.	Small Pox.	Typhoid Fever.	Scarlet Fever.	Diphtheria.	Small Pox.	Typhoid Fever.	Scarlet Fever.	Diphtheria.	Small Pox.
Remaining on Jan. 1st, 1896.	2	12	...	3	...	...	...	...	...	...	...	...	...	...	...	...
January	...	1	6	1	...	...	...	...	...	7	...	2	...	3	11	1
February	...	1	10	4	...	...	1	...	3	6	...	1	...	15	4	...
March	6	...	13	...	...	1	...	8	4	...	1	13	...	12
April	3	...	16	...	...	1	...	1	7	...	2	...	9	25
May	4	...	3	...	...	...	...	6	...	23	...	7	...	5
June	9	...	1	...	...	...	...	4	...	3	...	12	...	3
July	7	...	...	...	...	...	...	4	...	3	...	15	...	...
August	...	5	8	...	...	...	...	...	...	11	...	...	5	12	...	...
September	...	3	5	...	...	1	...	...	2	5	...	...	5	12	...	...
October	3	...	...	1	...	...	2	6	...	...	2	9	...	...
November	6	...	...	...	...	...	2	6	...	...	...	9	...	...
December	2	...	...	...	...	7	...	...
Total	..	12	79	5	36	...	2	...	1	2	...	10	72	4	34	...

Schedule of Typhoid Fever Cases treated at the Devon and Exeter Hospital for the year 1896 :—

Sana-
torium
Report

<i>Month.</i>		<i>Cases Treated.</i>		<i>Deaths</i>		<i>Discharged Cured.</i>	<i>Remaining last each month</i>	
April	...	1	..	—	...	—	...	—
May	...	2	...	—	...	—	...	—
June	..	5	..	1	...	—	..	—
July	...	2	..	3	...	1	..	3
August	..	3	...	—	..	2	...	4
September	...	2	..	—	...	—	...	6
October	..	1	...	—	...	4	..	3
November	...	1	...	—	..	1	..	3
December	...	1	..	—	...	1	..	3
Total ..		18		4		11		
Remaining January 1st, 1897					..		...	3

Summary

SUMMARY OF ACTION TAKEN TO LIMIT THE
SPREAD OF INFECTIOUS DISEASES.

In every case notified the premises were promptly visited by the Sanitary Inspector. In all cases where proper isolation could not be provided the Patients were *at once* removed to the Sanatorium, every assistance given, and disinfectants supplied in all cases of need. Precautionary notices were issued, and notices of houses infected, at once sent to the Schools and the Librarian at the Free Library, and also to the Clerk of the School Board. Besides this, all rooms and clothes have been thoroughly disinfected under the superintendence of the Sanitary Inspector.

During the past year 163 rooms were fumigated after cases of infectious disease, and 3,443 articles of clothing and bedding disinfected. The Table immediately following shows an account in detail of the work :—

*LIST OF ARTICLES Disinfected by Superheated Steam in the
“ Washington Lyon ” during the Year 1896.*

Mattresses	...	...	...	...	315
Palliasses	...	...	...	...	159
Blankets ...	...	...	...	..	472
Bolsters ...	...	...	...	...	160
Bedties ...	...	...	...	...	149
Quilts ...	...	...	...	...	166
Carpets ...	...	...	...	...	180
Dresses ...	...	...	...	...	89
Dressing-gowns	...	...	...	...	24
Cushions ...	...	...	...	...	75
Curtains ..	...	..	...	...	144
Underlinen	...	...	...	...	416
Coats ..	...	...	...	...	67
Suits ...	...	...	...	...	89
Rugs ...	...	...	..	...	148
Other Articles	...	...	...	...	790
Total for 1896	...	...	...	...	3443

SEWAGE.

During the past year a new mode of treatment called "The Septic Tank System" has been patented by DONALD CAMERON, Esq., the City Surveyor.

Sewage

A portion of the Sewage of Exeter has been treated by this system for a considerable time, during which I have frequently visited the works and taken samples of the effluent in various stages, and in my opinion (at least for this class of Sewage), it has proved most successful, and the analysis made by Drs. Dupre and Rideal and the Public Analyst for the City, show that the purification effected is superior to that obtained by the best managed Sewage Farms. The Council are applying to the Local Government Board for powers to apply this system to the whole of the Sewage of the City.

WATER SUPPLY,

The Water Supply of the City is taken from the River Exe, Water above the junction of the Culm, through a closed culvert, it is filtered first through the gravel of the river bed.

It is frequently analysed by the Public Analyst (both by Chemical and Bacteriological Examinations) with very satisfactory results.

A scheme, however, has been approved by the Council, and will soon be submitted to the Local Government Board which, when carried out, will considerably augment the quantity of water supplied to Exeter. This it is proposed to do by largely increasing the capacities of the works, and constructing large Filter Beds at Pynes, and pumping the filtered water up to the Reservoir; when these works are completed the supply for 24 hours, which at present is 1,750,000 gallons, will be increased to 2,550,000 gallons per 24 hours. Practically, we have an unlimited supply of water, and have never suffered, as other towns have, from a water famine.

CITY WATER.

The following are the Reports of the Public Analyst on the City Water Supply during the year 1896;—

Water
Supply

Report on the Analysis of Exeter Water drawn March 23rd, 1896.

The composition of the water appears to have slightly altered, from the presence of flood water, which has raised the amount of albumenoid ammonia and consequently that of the organic nitrogen. The figures of the analysis approach those of the analysis made in March, 1895. The water is a little below its usual standard of excellence.

Results of the Analysis of a Sample of Water.

Description—Exeter Supply drawn from Laboratory Tap on the Main.

Temperature when drawn	..	..	..	48° F
Smell when heated	..	..	..	Odourless.
Colour viewed in 2 ft. tube	..	..	..	·8 (slightly yellow)
<i>Parts per 100,000.</i>				
Alkalinity	..	..	..	.. 4 4
Free Ammonia	...	..	..	none.
Albumenoid Ammonia	..	..	..	·009
Organic Nitrogen	...	..	..	·012
Oxygen absorbed by organic matter in 3 hours				
common temp.	..	..	..	·048
Nitrogen present as Nitrates	...	..	..	·110
Phosphoric Acid	..	..	..	trace
Chlorine	..	..	..	1·2
Hardness before boiling	...	..	..	4·3
Hardness after boiling	..	..	..	3·9
Total Solid Matter	..	..	..	8·0

FRANK P. PERKINS, Analyst.

Report on the Analysis of the City Water drawn June 15th, 1896.

Gentlemen,

The alkalinity is higher than is usual, the hardness and total solids are also in greater proportion. This variation is due to an increase in temporary hardness, which is generally very slight. The water is in good condition, the proportion of organic nitrogen as well as of nitrogen present as nitrates being very low. The value of chemical analysis in pronouncing on the suitability of water for drinking or general household purposes is well shown in this analysis, the slightest variation in its composition can be determined. As Dr. Dupree has pointed out—"Chemistry anticipates what may happen in the future, and by timely advice may prevent an outbreak of disease, while, on the other hand, the discovery of disease germs in water is only possible after the water has become infected." The great use of Bacteriology in relation to water supply is the testing of filters and proving their efficiency.

Results of the Analysis of a Sample of Water.

Description—Exeter Supply drawn from Laboratory Tap on the Main.

Water Analysis.

Temperature when drawn	..	..	18·3° C. – 65° F.
Smell when heated	..	..	Odourless.
Colour viewed in 2 ft. tube	...	..	·4
Parts per 100,000.			
Alkalinity	..	..	7·0
Free Ammonia	..	..	·001
Albumenoid Ammonia	..	..	·007
Organic Nitrogen	..	..	·098
Nitrogen as Nitrites and Nitrates	...	...	·098
Oxygen absorbed in 4 hours	..	..	·07
Hardness before boiling	..	..	8·2
Hardness after boiling	..	..	3·8
Phosphoric Acid	..	..	a trace
Chlorine	..	..	1·3
Total Solid Matter	..	..	10·0

FRANK P. PERKINS, Analyst.

Report on the Analysis of Exeter Water drawn September 14th, 1896.

Gentlemen,

The only change that has taken place in the composition of the water requiring notice is in the proportion of nitrogen present as nitrates which has risen in great degree. Having never met with such a rise before in the Exeter Water, I repeated the experiment, and obtained a closer similar result. I am inclined to attribute this comparatively large amount of nitrogen to the rapid oxidation of organic matter brought about during the very hot summer months, and which would favour the production of nitrates.

Report of the Analysis of a Sample of Water.

Description—Exeter Supply drawn from the Laboratory Tap on the Main.

Temperature when drawn	...	...	60° F.
Smell when heated	..	..	Odourless.
Colour viewed in 2-ft. tube	...	..	·5
Parts per 100,000.			
Alkalinity	..	..	7·0
Free Ammonia	..	..	none
Albumenoid Ammonia	..	..	·005
Organic Nitrogen	..	..	·008
Nitrogen present as Nitrates and Nitrites	...	...	·590
Oxygen absorbed by Organic Matter in 3 hours	..	..	·0696

Water Analysis.	Chlorine	...	..	..	..	1.4
	Phosphoric Acid	..	..	...	..	trace
	Hardness before boiling	..	..	..	..	7.0
	Hardness after boiling	..	..	..	..	3.8
	Total Solid Matter	..	..	..	..	0.0

FRANK P. PERKINS, Analyst.

SLAUGHTER HOUSES.

Slaughter houses. The nine private Slaughter Houses in the City have been regularly inspected and two have been reconstructed. I am, however, pleased to be able to report that the Public Abattoir is year by year more appreciated and used.

BAKEHOUSES.

Bake-houses. These have been regularly inspected and are in good condition, all the requirements of the Acts of Parliament being duly complied with.

DAIRIES, MILK SHOPS, AND COW SHEDS.

Dairies, etc. These have been regularly and carefully inspected and are all in fair sanitary condition. The number of the Cowsheds in the City are six all of which are situate in the rural districts of the County of the City.

COMMON LODGING HOUSES.

Common Lodging Houses. The two registered Common Lodging Houses have been duly and regularly inspected by the Chief Inspector of the Police, who is the Inspector of Common Lodging Houses, and reported to the Sanitary Committee as being in good condition. These houses have also been several times inspected by the Officers of the Health Department.

SALE OF FOODS AND DRUGS ACT.

Foods and Drugs Act. One hundred Samples have, during the past year, been taken for analysis.

The number of adulterated Samples again shows a decrease on that of the two previous years, viz : in 1894, 17 per cent. ; 1895, 15 per cent. ; 1896, 11 per cent.

Every precaution has been taken to prevent the object of the purchase being known to the seller until after such purchase has been completed, in many cases the regular customers of the

tradesmen purchasing the Samples for the Inspector. Taking the population of the City as 38,000, it will be seen that one Sample was taken for every 380 inhabitants. This regular and systematic method of obtaining Samples in the City has, no doubt, considerably reduced the percentage of adulteration.

Foods
and
Drugs
Act.

Abstract of Samples taken for Analysis for the Year 1896.

	<i>Milk.</i>	<i>Butter.</i>	<i>Coffee.</i>	<i>Pepper.</i>	<i>Whiskey</i>	<i>Vinegar.</i>	<i>Gin.</i>	<i>Total.</i>
Examined	34	21	15	13	5	5	4	100
Adulterated.. ..	10	—	1	—	—	—	—	11

AMOUNT OF ADULTERATION, PROCEEDINGS TAKEN,
AND FINES.

<i>No. of Sample</i>	<i>Article Adulterated.</i>	<i>Amount of Adulteration.</i>	<i>Proceedings taken.</i>	<i>Result of Proceedings.</i>
2	Milk ..	5 p.c. added water ...	None ..	
8	Milk ..	35·12 p.c. added water	None } *	
9	Milk ..	32·4 p.c. added water ...	None }	
13	Milk ..	8 p.c. added water ...	Summoned ..	Fined 10s and expenses.
14	Milk ..	·72 fat removed ..	Summoned ..	Fined £3 and expenses
26	Milk ..	27·2 p.c. added water ...	Summoned ..	Fined £1 and expenses.
5	Milk ..	3·5 p.c. added water ..	None ..	
57	Milk ..	Contains boxax ..	None ..	
58	Milk ..	Contains borax ...	None ..	
59	Milk ..	Contains borax ...	None ..	
34	Coffee ..	22·7 chicory ...	None † ..	

Magis-
terial
Proceed-
ings.

* These samples were taken by private people who refused to prosecute.

† Notice of admixture duly given to the purchaser.

Magisterial Proceedings respecting various Cases brought
before the Justices during the Year 1896:—

Magis-
terial
Proceed-
ings.

No.	Nature of Offence.	Date of Hearing.	Result.
1	Premises in such a state as to be dangerous to health. Proceedings under Housing of the Working Classes Act.	10th March	Closing Order granted.
2	Selling Milk Adulterated with 8 p.c. of added water.	12 June	Fined 10s. and expenses.
3	Selling Milk with 72 p.c. of Fat abstracted.	12 June	Fined £3 and expenses.
4	Depositing in Higher Market 9 pieces of meat unfit for food.	12 June	Fined £3 and expenses.
5	Depositing at Lower Market the carcase of a pig unfit for food.	22nd May	Fined £5 and expenses.
6	Selling Milk with 27 2 p.c. added water.	20 June	Fined £1 and expenses.

METEOROLOGICAL READINGS.

I have again to thank the Committee of the Devon and Exeter Institution and their Librarian (A. F. ALLISTON, ESQ., M.A.), for their continued courtesy in supplying the Meteorological Readings for the year.

METEOROLOGICAL READINGS FOR THE YEAR 1896 (taken at Devon and Exeter Institution).

Month.	Barometer Corrected.	Thermometer in Shade.		Mean of				Total of		REMARKS.	
		Highest Reading.	Lowest Reading.	Thermometers.		Dew Point.	Thermometers in Shade.		Rain in Inches.		Number of Wet Days.*
				Dry Bulb.	Wet Bulb.		Maxi- mum.	Mini- mum.			
Jan...	30.338	56.0	29.0	42.2	40.8	39.0	45.6	37.5	0.64	12	JANUARY—Remarkably high barometer readings on the 9th and 10th of month, and again on 29th, 30th and 31st. At 3 p.m., on 9th barometer stood at 30.788; at 9 a.m. on 30th at 30.808 (!)
Feb. ...	30.313	60.0	39.0	40.8	39.4	37.5	47.0	36.6	0.36	4	
Mar. ...	29.867	65.0	34.0	47.9	46.2	44.2	53.6	41.9	3.03	24	
April ...	30.199	66.0	33.5	52.0	48.8	45.6	59.1	43.4	.42	6	
May ...	30.227	76.5	38.0	59.8	55.0	50.6	67.2	48.5	.06	1	FEBRUARY—Very dry month and high barometer.
June ...	30.076	80.0	49.0	64.6	60.3	57.0	68.9	54.3	2.20	10	MARCH—An exceptionally wet month
July ..	30.032	80.5	49.0	66.1	61.8	58.4	73.3	56.0	1.08	9	
Aug. ...	30.076	81.0	47.5	63.0	59.3	56.1	70.5	53.8	1.61	10	APRIL—A very dry month.!
Sept. ...	29.789	69.5	43.0	58.5	57.0	55.7	64.3	52.2	3.96	24	SEPTEMBER—Wet month. Remarkably rapid and heavy fall of barometer on 24th and 25th with severe gale
Oct. ..	29.763	68.0	30.5	47.0	45.6	44.0	53.7	40.4	2.38	19	
Nov. ...	30.132	54.0	28.0	40.6	39.1	37.2	46.9	34.6	1.01	7	NOVEMBER—Exceptionally dry.
Dec. ...	29.760	56.0	27.0	42.9	41.6	40.0	45.7	36.3	5.88	27	DECEMBER—Wet month.

Giving a total rainfall for 1896 of 22.63 inches and the total number of Wet Days 153.

*A Fall of 0.01 Inches constitutes a Wet Day

Table shewing the Rain fall in Exeter for 10 previous years and number of wet days.

Rain fall
in Exeter

Year.	Gross Rainfall.	No. of Wet Days.	
1886	33.46	150	
1887	22.18	102	
1888	32.12	149	Average rain for the previous ten years, 29.37 inches.
1889	23.48	137	
1890	28.48	141	Average number of wet days in the previous ten years, 146.8
1891	36.98	150	
1892	23.24	114	The rainfall for 1896 is 6.74 below the average for the previous ten years. Although the num- ber of wet days in 1896 was 6.2 above the average of the 10 preceding years.
1893	24.43	139	
1894	36.73	213	
1895	32.62	173	

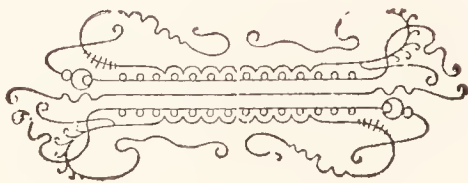


TABLE I.

Monthly Returns of the number of Cases of Infectious Disease reported to the Medical Officer during the year 1896 :—

<i>Month.</i>		DISEASES NOTIFIED.									
		<i>Small Pox.</i>	<i>Cholera.</i>	<i>Diphtheria.</i>	<i>Memb. Croup.</i>	<i>Erysipelas.</i>	<i>Scarlet Fever.</i>	<i>Typhoid</i> "	<i>Typhus</i> "	<i>Puerperal</i> "	<i>Continued</i> ,
January	..	—	—	3	—	2	8	3	—	—	—
February	..	—	—	6	—	4	11	4	—	—	—
March	..	11	—	—	—	3	5	2	—	1	—
April	..	16	—	1	—	3	2	6	—	—	2
May	..	3	—	2	—	1	6	8	—	1	—
June	..	1	—	—	—	3	10	9	—	—	—
July	..	—	—	—	—	3	2	9	—	—	—
August	..	—	—	2	—	8	8	16	—	—	—
September	...	—	—	—	—	7	2	9	—	1	—
October	...	—	—	—	—	5	4	2	—	—	—
November	...	—	—	2	—	1	4	3	—	—	—
December	...	—	—	—	—	3	1	3	—	—	—
Total	..	31	—	16	—	43	63	74	—	3	2

Monthly Return.

TABLE II.

Return of the Number of Cases of Infectious Disease reported to the Medical Officer during the year 1896, and Deaths from the Disease notified:—

Deaths
from
Infectious
Diseases.

<i>Disease.</i>			<i>Cases Notified during Year 1896.</i>	<i>Deaths Regis- tered during Year 1896.</i>
Small Pox	..	..	31	2
Cholera	..	..	—	—
Diphtheria	..	..	16	3
Membranous Croup	..	..	—	—
Erysipelas	..	..	43	1
Scarlet Fever	..	..	63	..
Enteric or Typhoid Fever		..	74	13
Typhus Fever	..	..	—	—
Puerperal Fever	..	..	3	1
Continued Fever	..	..	2	—
<i>Total</i>	..	..	232	20

One death from Typhoid Fever, and one from Diphtheria—occurred at the Sanatorium, Pinhoe.

TABLE III.

Shewing the Number of Deaths from all Causes.

			No. of Deaths
I.—SPECIFIC FEBRILE OR ZYMOTIC DISEASES—			
1.	Miasmatic Diseases	..	20
2.	Diarrhoeal ..	..	22
3.	Malarial ..	..	—
4.	Zoogenous ..	..	—
5.	Veneral ..	..	3
6.	Septic ..	..	4
II.—PARASITIC DISEASES			
III.—DIETIC DISEASES			
IV.—CONSTITUTIONAL DISEASES			
V.—DEVELOPMENTAL DISEASES			
VI.—LOCAL DISEASES—			
1.	Diseases of Nervous System	..	77
2.	Diseases of Organs of Special Sense	..	—
3.	Diseases of Circulatory System	..	79
4.	Diseases of Respiratory System	..	133
5.	Diseases of Digestive System	..	50
6.	Diseases of Lymphatic System	..	—
7.	Diseases of Gland-like Organs of Uncertain Use	..	—
8.	Diseases of Urinary System	..	31
9.	Diseases of Reproductive System—		
	(a). Diseases of Organs of Generation	..	—
	(b). Diseases of Parturition	..	2
10.	Diseases of Bones and Joints	..	2
11.	Diseases of Integumentary System	..	3
VII.—VIOLENCE—			
1	Accident or Negligence	..	14
2.	Homicide ..	..	—
3.	Suicide ..	..	3
4.	Execution ..	..	—
VIII.—ILL-DEFINED AND NOT SPECIFIED CAUSES.			
Total ..			
			708

TABLE IV

Showing Ages of Deaths Registered from all Causes during the Year 1896.

	AGES.											Total.	55 to 60
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 upwards		
I.—Specific Febrile or Zymotic Disease	26	6	2	7	2	2	2			1		49	
II.—Parasitic Diseases ..													
III.—Dietic Disease ..													
IV.—Constitutional Diseases ..	6	12	7	22	17	23	17	9	14	6		143	10
V.—Developmental Diseases ..	49	2						1	7	27	19	105	
VI.—Local Diseases ..	78	31	14	13	23	19	28	38	72	30	6	377	25
VII.—Deaths from Violence ..	3			2	1	4	2	2		1		17	2
VIII.—Deaths from Ill-Defined and not Specified Causes ..	5		1	1	1			3	6			17	
Totals ..	167	51	24	45	44	48	49	53	100	65	25	708	37

TABLE V.

Showing the Deaths registered from all causes during the year.

[illegible]

TABLE V.—*Continued.*

	AGES.											Totals	55 to 60
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 upwards		
III.—DIETIC DISEASES.													
Want of Breast Milk, Starvation	...	...	...	...	...	...	...	...	...	...	...	..	..
Scurvy	...	...	...	...	...	...	...	...	...	...	...	..	..
Chronic Alcoholism	...	...	...	...	...	...	...	...	...	...	...	..	..
Delirium Tremens	...	...	...	...	...	...	...	...	...	...	...	..	..
IV.—CONSTITUTIONAL DISEASES													
Rheumatic Fever, Rheumatism of the Heart	...	...	...	1	...	...	...	...	...	...	...	1	..
Rheumatism	...	...	...	...	...	...	...	...	2	...	...	2	..
Gout	...	...	...	...	...	...	...	1	...	...	...	2	1
Rickets	...	4	...	...	...	...	...	...	...	...	...	4	..
Cancer, Malignant Disease	1	...	1	...	...	5	9	2	11	5	...	41	7
Tabes Mesenterica	...	...	...	1	...	...	...	...	...	...	...	1	..
Tubercular Meningitis, Hydrocephalus	1	4	2	3	...	1	1	...	...	...	...	12	..
Phthisis	...	1	1	17	14	16	7	4	...	...	...	61	1
Other forms of Tuberculosis, Scrofula	4	3	2	...	2	...	...	...	...	...	...	12	1
Purpura, Hæmorrhagic Diathesis	...	...	1	...	...	1	...	...	...	...	...	2	..
Anæmia, Chlorosis, Leucocythæmia	...	...	...	...	...	...	...	...	...	...	...	..	..
Glycosuria, Diabetes Mellitus	...	...	...	...	1	...	...	2	1	1	...	5	..
Other Constitutional Diseases	...	...	...	...	...	...	...	...	...	...	...	...	..
	6	12	7	22	17	23	17	9	14	6	..	143	10
V.—DEVELOPMENTAL DISEASES.													
Premature Birth	15	...	...	...	...	...	...	...	...	...	...	15	..
Atelectasis	32	2	...	...	...	...	...	...	...	...	...	34	..
Congenital Malformations	2	...	...	...	...	...	...	...	...	...	...	2	..
Old Age	...	...	...	...	...	...	...	1	7	27	19	54	..
	49	2	...	...	...	...	...	1	7	27	19	105	..
VI.—LOCAL DISEASES.													
1.—Diseases of Nervous System.													
Inflammation of Brain or Membranes	1	1	1	1	...	...	...	2	...	...	...	6	..
Apoplexy, Softening of Brain, Hemiplegia, Brain Paralysis	2	...	...	...	1	3	2	5	14	8	2	38	1
Insanity, General Paralysis of the Insane	...	...	...	...	...	...	...	...	2	1	...	3	..
Epilepsy	...	...	1	...	...	...	...	...	1	...	...	2	..
Convulsions	15	7	...	...	...	...	...	...	...	...	...	22	..
Laryngismus Stridulus (Spasm of Glottis)	1	1	...	...	...	...	...	...	...	...	...	2	..
Disease of Spinal Cord, Paraplegia, Paralysis Agitans	1	...	...	...	...	...	...	...	...	...	...	1	..
Other Diseases of Nervous System	...	...	...	3	...	...	...	...	...	...	...	3	..
	20	9	2	4	1	3	2	7	17	9	2	77	1

TABLE V.—Continued.

[illegible]

TABLE V.—Continued.

		AGES.											Totals	55 to 60
		0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 upwards		
8.—Diseases of Urinary System.														
Nephritis	..	1	..	1	1	4	..	1	2	1	..	..	12	1
Bright's Diseases, Albuminuria	..	..	..	..	..	1	..	1	1	4	1	..	8	..
Diseases of Bladder or of Prostate	..	..	..	..	..	1	..	..	2	2	1	..	7	1
Other Diseases of the Urinary System	..	..	..	..	..	1	..	2	1	..	..	..	4	..
		1	..	1	1	7	..	4	6	7	2	..	31	2
9.—Diseases of Reproductive System														
(A). Of Organs of Generation.														
Male Organs	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Female Organs	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(B). Of Parturition.														
Abortion, Miscarriage	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Convulsions	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Placenta prævia. Flooding	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Accidents of Child Birth	..	..	..	..	..	1	1	..	..	..	..	..	2	..
		..	..	..	..	1	1	..	..	..	..	..	2	..
10.—Diseases of Bones and Joints.														
Caries, Necrosis	..	..	..	..	..	..	..	1	1	..	..	..	2	..
Anthraxis, Osteitis, Periostitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Diseases of Bones and Joints	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		..	..	..	..	..	..	1	1	..	..	..	2	..
11.—Diseases of Integumentary System														
Carbuncle, Phlegmon	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Diseases of Integumentary System	..	..	1	..	..	..	..	..	..	1	1	..	3	..
		..	1	..	..	..	..	..	..	1	1	..	3	..
VII.—DEATHS FROM VIOLENCE														
1.—Accident or Negligence.														
Fractures and Contusions	..	..	..	..	2	..	1	1	1	..	..	..	6	1
Gunshot Wounds	..	..	..	..	..	..	1	..	..	..	..	..	1	..
Cut, Stab	..	..	..	..	..	..	..	1	..	..	..	..	2	1
Burn, scald	..	..	..	..	..	..	..	..	..	..	1	..	1	..
Poison	..	1	..	..	..	..	1	..	..	..	..	..	2	..
Drowning	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Suffocation	..	2	..	..	..	..	..	..	..	..	..	..	2	..
Otherwise	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		3	..	..	2	..	3	2	1	..	1	..	14	2

TABLE V.—Continued.

		AGES											Totals	55 to 60
		0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 upwards		
2.—Homicide.		—	—	—	—	—	—	—	—	—	—	—	—	—
Manslaughter	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Murder	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3.—Suicide.		..	..	..	..	..	..	..	..	..	..	..	..	..
Gunshot Wounds	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cut, Stab	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Poison	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Drowning	..	..	..	..	1	..	..	..	..	..	..	..	1	..
Hanging	..	..	..	..	..	1	..	1	..	..	..	..	2	..
Otherwise	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4.—Execution.		..	..	..	..	1	1	..	1	..	..	..	3	..
Hanging	..	..	..	..	..	..	..	..	..	..	..	..	..	..
VIII.—DEATHS FROM ILL- DEFINED AND NOT SPECIFIED CAUSES.		..	..	..	..	..	..	..	..	..	..	..	..	..
Dropsy	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Debility, Atrophy, Inanition	..	5	..	..	..	..	..	..	..	..	..	..	5	..
Mortification	..	..	..	..	..	1	..	..	1	4	..	..	6	..
Tumour	..	..	..	1	..	..	..	..	1	2	..	..	4	..
Abscess	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hæmorrhage	..	..	..	..	..	..	..	..	1	..	..	..	1	..
Sudden Death (cause not ascertained)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Causes not Specified or Ill-defined	..	..	..	..	1	..	..	..	..	..	..	..	1	..
		5	..	..	1	1	1	..	..	5	..	..	17	..



(A) TABLE OF DEATH DURING THE YEAR 1896, IN THE EASTERN AND WESTERN DIVISION OF THE URBAN SANITARY DISTRICT OF EXETER, CLASSIFIED ACCORDING TO DISEASES, AGES, AND LOCALITIES, AND SHOWING ALSO THE POPULATION OF SUCH LOCALITIES.

EASTERN DIVISION.

Mortality from all causes, at subjoined ages										Mortality from subjoined Causes, distinguishing Deaths of Children under Five Years of Age.																					
NAMES OF LOCALITIES adopted for the purpose of these Statistics; public institutions being shown as separate localities.								(i)	1	2	3	4	5	FEVERS.				9	10	11	12	13	14	15	16	17	18	19	20	21	22
	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	Smallpox.	Scarlatina	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea & Dysentery.	Rheumatic Fever.	Ague.	Phthisis.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease.	Injuries.	All other Diseases.	TOTAL.	
The City (not including the Hospital and Workhouse)	391	103	34	12	19	81	142	Under 5 5 upwds.	.. ..	.. ..	.. ..	.. ..	.. ..	.. 6	.. ..	.. ..	.. 1	.. ..	.. 1	1 4	.. ..	17 ..	.. 1	.. ..	.. ..	.. 43	22 42	.. 32	2 4	54 161	96 295
Hospital	..	6	6	4	13	37	10	Under 5 5 upwds	.. ..	.. ..	1 ..	.. ..	.. ..	.. 4	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. 2	.. 2	.. 5	.. 10	.. 47	11 65	
Workhouse	..	..	2	...	1	8	22	Under 5 5 upwds.	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. 4	.. 3	.. 1	.. 1	2 18	2 31	
TOTALS	500	109	42	16	33	126	174	Under 5 5 upwds.	.. ..	.. ..	1 ..	.. ..	.. ..	.. 10	.. ..	.. ..	.. 1	.. ..	.. 1	1 4	.. ..	17 ..	.. 1	.. ..	.. ..	.. 49	22 47	.. 42	2 10	66 263	109 391

Area and Population of the District or Division to which this Return relates: Area in Acres, 649; Population (1891), 23,766.

WESTERN DIVISION.

208	58	9	7	12	52	70	Under 5 5 upwds.	1	1
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Area and Population of the District or Division to which this Return relates: Area in Acres, 1,241; Population (1891), 13,802.

(B) TABLE OF POPULATION, BIRTHS, AND OF NEW CASES OF INFECTIOUS SICKNESS COMING TO THE KNOWLEDGE OF THE MEDICAL OFFICER OF HEALTH, DURING THE YEAR 1896, IN THE URBAN SANITARY DISTRICT OF EXETER, CLASSIFIED ACCORDING TO DISEASES, AGES, AND LOCALITIES.

NAMES OF LOCALITIES adopted for the purpose of these Statistics; public in- stitutions being shown as separate localities.	Population at all ages.		Register Births. (d)	(e)	New Cases of Sickness in each Locality, come to the knowledge of the M.O.H.											Number of such Cases removed from each Hospital, as to the several Localities for Treatment in Isolated Hospital.														
	Census 1891. (b)	Estimated to middle of 1896 (c)			1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11	12	13		
						Smallpox.	Scarlatina	Diphtheria	Membranous Group.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Paratyphoid.	Cholera.	Erysip. lar.	Small-pox	Scarlatina	Diphtheria	Membranous Group.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Paratyphoid.	Cholera.	Relapsing.	12	13	
The City (not including the Hospital, Workhouse, & Eye Infirmary) ..	36,831	37,119	943	Under 5 5 upwds.	4 26	13 39	5 7	..	4 52	..	..	..	..	3	..	42	4 26	9 19	1 4	..	1 9	..	..	..	..	..	..	..	..
Hospital (total)	224	218		Under 5 5 upwds.	1 2	2 2	2 2	1 17	1 2	2 2	2 16
Workhouse (total)	306	257		Under 5 5 upwds.	..	3	1	..	3
Eye Infirmary (total)	43	56		Under 5 5 upwds.	..	2	2	2
From the County of Devon ..	37,401	38,000		Under 5 5 Upwds.	..	..	..	..	..	..	..	..	..	..	..	..	2	5	1	..	2	3	..	..	..	..	..	..	..
TOTALS	37,401	38,000		Under 5 5 Upwds.	4 27	17 46	7 9	..	5 69	..	..	..	..	3	..	43	4 27	18 49	1 4	..	3 27	..	..	..	..	..	..	..	..

Notification of Infectious Disease has been compulsory in the District since 1889. The name of the Isolation Hospital of the City of Exeter is the Exeter Sanatorium, situate in Whipton, in the Parish of Pinnice, about two miles from Exeter.

Sanitary Inspector's Report.

I have the honor of presenting for your consideration my Annual Report as Sanitary Inspector for the City and County of the City of Exeter.

In the early part of this year nearly the whole of the time of the Officers were taken up in preventing and checking the out-break of Small Pox, which had broken out in the lower part of the City, details of which are given in the Report of the Medical Officer of Health. In all cases notified the patient was seen by the Medical Officer of the District, and removed to the Sanatorium, and the premises under the process of disinfecting within three hours of the receipt of the notification. The large number of cases of Typhoid Fever notified this year have also required careful investigation, and considerable time has been spent in this work.

During the year 403 visits were paid to houses from which cases of infectious disease had been notified, and in each case Notices giving general instructions and setting forth the law as to wilful exposure, while suffering from infectious disease, were left in the house.

Notices were sent to the Schoolmaster or Schoolmistress of the School, to which the patient had been attending, requiring that no child from the infected house be allowed to attend School until the complete recovery of the patient, or the proper period of quarantine had elapsed; also to the Librarian of the Free Library.

During the year 83 cases of infectious disease were removed to the Sanatorium from the City, and 18 cases of Typhoid Fever removed to the Devon & Exeter Hospital; in each case the premises were fumigated the next day, or next following, and all bedding, clothing, and other articles were disinfected by the Washington Lyon Steam disinfectant.

Housing
Working
Classes.

A large amount of work has again been done under the Housing of the Working Classes Act, 1890, and several of the worst places have been demolished, notably premises at the rear of 40, Preston Street, Ewings' Lane, and 24, Frog Street, and the following premises have also been closed as unfit for human habitation, viz: 18, Stepcote Hill, the whole of the Rooms in Mission Hall Court, 6 Houses in Parsonage Court, Stepcote Hill, while many other sets of premises have been put in thorough repair, and through ventilation provided.

The water-closet accommodation of a large number of premises in the City have been investigated, and 50 additional water-closets provided; while many have been put in a thorough state of repair. The abolition of numerous privies which discharged into the Mill Leats have been accomplished, and in each case properly constructed water-closets connected to the sewers have been substituted.

PUBLIC ABATTOIR AND PRIVATE SLAUGHTER HOUSES.

The Public Abattoir seems to be more and more appreciated every year, and is always kept in a high state of efficiency.

There have been 656 visits paid to the 9 Private Slaughter-Houses, and in most cases they have been found to be kept in compliance with the Bye-Laws. Two Private Slaughter-Houses have been re-constructed.

The following figures give the number of animals slaughtered in the Public Abattoir during the year 1896:—Beasts, 1,606; Calves, 1,118; Sheep, 10,695; Pigs, 1,787; Total—15,206.

DRAIN TESTING.

During the year 174 tests have been applied to Drains, and in every case where defects were found Notice has been served, and when the defects have been made good, or new drains laid, they have again been tested, either by the Hydraulic or Smoke Test, before being covered up. Every precaution is taken to avoid, where possible, drains passing under the house, and where this cannot be avoided, it is imperative that the drains must be encased in Portland cement.

The examination of the drainage of houses before occupation seems to be more and more insisted upon every year, and many defects which would not otherwise have come to light, have through this source been discovered and remedied.

Drainage
Examina-
tions

UNSOUND MEAT, VEGETABLES, FOODS & DRUGS.

Frequent and periodical inspections have been made at the Markets, Slaughter Houses, and Shops for the detection of unsound meat, fruit, and other articles of food, and one hundred samples were purchased for analysis under the Foods & Drugs Act, 1875 and 1889. The result of these analyses is shown in the Medical Officer's Report—page 23.

TABLE showing Meat, Fish, &c., seized as Unfit for Food :—

<i>Reference Number.</i>	<i>Nature of Seizure.</i>	<i>Date.</i>
1.	...Rotten Muggett .. ..	..1st August.
2.	..14 Boxes of Haddock ...	...14th September.
3.	...21 Boxes of Kippers and 3 Boxes of Bloaters ... ..	..14th September.
4.	...56 Boxes of Bloaters and 1 Cask of Herrings ... ..	...14th September.
5.	...Carcase of Sheep, Dropsy and Tuber- culosis .. ..	...14th September.
6.	...Carcase of Sheep, Tuberculosis	..17th October.
7.	..Carcase of Lamb, Inflammation	...17th October.
8.	...Carcase of Bullock ..	...31st December.

BAKEHOUSES.

There have been 151 visits made to the 62 Bakehouses in the City, and in five sanitary defects were found to exist; the defects were at once remedied.

DAIRIES, COWSHEDS, AND MILKSHOPS.

There are now 79 Dairies, Cowsheds, and Milkshops registered under the Orders; all have been regularly inspected. One can only wish that Milk should not be allowed to be sold in small general shops.

Offensive
Trades,

OFFENSIVE TRADES.

The whole of the Offensive Trades have been regularly inspected, and all are conducted in a satisfactory manner.

INSPECTION OF THE DISTRICT.

The House-to-House Inspection of the smallest houses, cottage property, courts and alleys, and all houses registered under the Bye-Laws of Houses Let in Lodgings has, as far as time would permit, been carried out by myself and Assistant, and it is found that only by frequent inspections can certain parts of the City be kept in anything like sanitary condition. Many nuisances discovered by these inspections are at once abated, and it is by impressing upon the inhabitants of those localities the advantages of cleanliness, and getting them to understand that it is for their benefit, as well as for the City, that the Council insists upon their premises being kept thoroughly clean, that I am able to report a marked improvement in many of the worst parts of the City.

Report of the Sanitary Work completed in the Year 1896.

Complaints Received during the Year	61
Houses and Rooms Inspected	3231
Re-inspection of Houses and Rooms	1412
Notices served for Sanitary Amendments of Houses and Premises	705
Houses, Premises, &c., Cleaned, Repaired, and Limewashed .	65
Rooms Disinfected after Illness of an Infectious Character .	163
Drains Repaired, Cleaned, Trapped, and Ventilated .	45
Drains Relaid with Socketted Pipes properly Trapped and Ventilated	162
Water-Closets Repaired	30
Water Closets Supplied with Water	25
New Water-Closets provided	50
Ashpits Repaired and Covered	1
Removal of Accumulations of Dung, Stagnant Water, Animal and other Refuse	32
Animals Removed, being improperly kept	53
Water Closets Cleansed by notice from H.M. Inspector .	35
Courtyards Paved in Cement Concrete	48
Soilpipes ventilated	23
Defective Belltraps replaced by Stoneware Gullies .	27
Wastepipes to discharge into Stoneware Gullies and Trapped	14
Slaughterhouses Limewashed and Cleansed, twice .	9
Visits to Slaughterhouses	656
Slaughterhouses reconstructed	2
Bakehouses Limewashed, twice	62
Visits to Bakehouses	151
Bakehouses repaved	5
Notices, Houses of Working Classes Act	14
Notices to Tenants to vacate Premises	6
Cases of Overcrowding Abated	5
Notices served for Drains to be opened	5
Notices served to construct Smoke-consuming Fireplaces .	1
Covers provided to Cisterns	1
Notices served for proper supply of Water for Domestic use .	3
Articles of Clothing Disinfected	3443
Smoke Test applied to Drains	174
Samples taken for Analysis	100
Cowsheds Inspected	6
Dairies and Milkshops Inspected	73
Visits to Schools to see that no Scholars from Infected Houses were attending	384
Notices to Managers of Schools of Infectious Sickness exist- ing in Houses from which Scholars were attending .	172
Notices to Librarian of Exeter Free Library	55
Workshops inspected	163
Visits to Shops to see that the requirements of the Shop Acts were complied with	52

FACTORY & WORKSHOPS' ACTS, 1878, 1891, 1895.

—O—

During the past year a large number of the Workshops have been inspected, and measured up, and in a few cases overcrowding was found to exist, but this was soon abated upon receipt of Notice from the Authority.

Several complaints have been received as to the sanitary condition of certain Laundries, all of which have been dealt with and the premises put in a good sanitary condition.

In several Bakehouses sinks, which had been in the Bakehouse previous to 1883, were removed under the provisions of the Act of 1895.

Many visits have been paid to the Shops in the City to see that the Notices required by the Shop Hours' Act were posted in a conspicuous place, and it was found that very few had complied with the requirements of this Act, but upon being informed that the same must be complied with, upon my second visit I found the Notices posted as required.

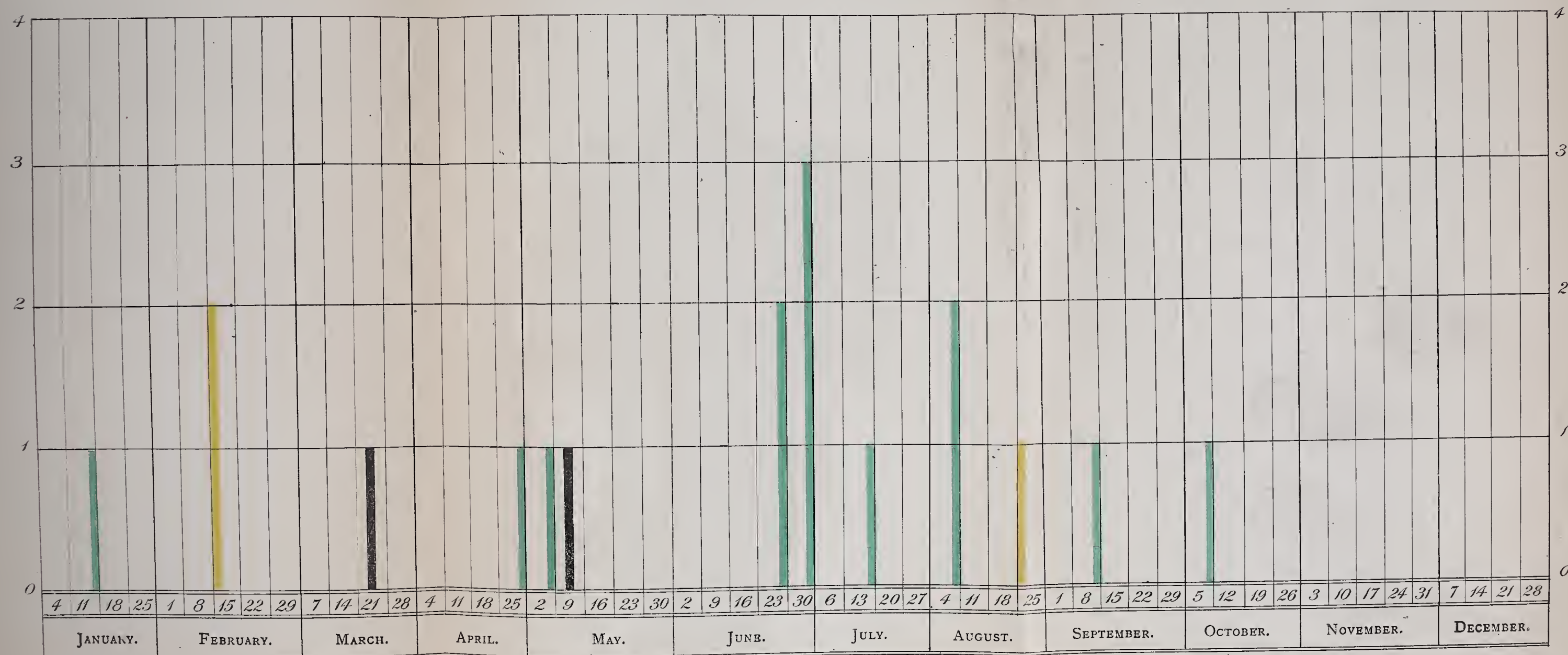
I have the honor to be,

Yours obediently,

W. J. WREFORD,

Sanitary Inspector.

Chart 2: Shewing Weekly Mortality from Scarlet Fever, Small Pox, Diphtheria, and Typhoid Fever.



SCARLET FEVER.

SMALL POX.

DIPHTHERIA.

TYPHOID FEVER



NOTE.—Deaths occurring, in cases removed, to the Devon & Exeter Hospital, and Sanatorium are marked in the localities from which they were removed.



